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Workman Nydegger
1000 Eagle Gate Tower
60 East South Temple
Salt Lake City, UT 84111

EXAMINER	
MACILWINEN, JOHN MOORE JAIN	
ART UNIT	**PAPER NUMBER**
2442	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/735,417	GORDY ET AL.	
	Examiner	Art Unit	
	John M. MacIlwinen	2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 9/22/2008 have been fully considered but they are not persuasive.

2. Applicant's arguments begin by addressing Sorhaug, arguing that Sorhaug's teaching "the system monitor or network analyzer can selectively insert data in either direction to provide complete diagnostic testing of the channel" does not support the "both the options of inserting data either disruptively or non-disruptively". However, the Examiner has not argued that this is the case; that is, the Examiner has not argued that this statement alone supports all of "both the options of inserting data either disruptively or non-disruptively".

3. To teach "at least one of the first and second tap ports configured to receive device data from the attached device, means for inserting device data from the attached device into the network cable without disrupting the flow of data therein", multiple sections of Sorhaug were cited. Furthermore, when responding to Applicant's previous argument (6/20/2008), the Examiner also discussed addition citations from Sorhaug. Applicant has only addressed one of the citations.

4. Sorhaug's teachings of:

> I. "the medium monitor **may** interrupt medium data transfer in either direction and insert its data for diagnostic or other network purposes"
>
> (Abstract, emphasis added)

and Sorhaug's teaching of

II. "the network monitor or medium analyzer can selectively insert data in either direction to provide complete diagnostic control testing of the channel."

(col. 2 lines 12 – 14)

show that Sorhaug has anticipated both disruptive interruption of traffic for diagnostics in citation I above, but notes that it *may* occur, not that it *must*; citation II describes selective insertion of data and without discussing any data disruption. Thus, given that there are inherently only two options for data insertions (disruptively or non-disruptively), since Sorhaug discloses both options, it would have been obvious to one of ordinary skill in the art at the time of the invention to insert data and not disrupt the data flow. Applicant's arguments thus are not persuasive.

5. Applicant next provides their own interpretative summaries of Sorhaug's teaching, and argues that "these teaches of Sorhaug . . . teaches away from 'means for inserting device data from the attached device into the network cable without disrupting the flow of data therein'". However, the Examiner does not agree with this argument. Sorhaug's teachings show the option of disruptive data insertion, but also, for the reasons given above, inserting data without disrupting data flow. Applicant's arguments thus are not persuasive.

6. Applicant next provides a summary of col. 3 lines 11 – 21 of Sorhaug, and then argues that Sorhaug's teachings "cannot transmit . . . data without . . . disrupt[ing] data from the device" and that Sorhaug does not teach "means for inserting device data from the attached device". However, the Examiner does not agree that col. 3 lines 11 – 21

support Applicant's conclusions and interpretations of Sorhaug; Applicant's arguments regarding Sorhaug's teaching inserting device data without disrupting data flow continue to be unpersuasive due to the reasons given above.

7. Applicant next discusses their interpretation of claim 1, and then argues that in Yanacek, "there is no teaching or suggestion of inserting device data from an attached device into the network cable". Applicant continues with this argument on pages 15 - 17, regarding Applicant's belief that Yanacek does not teach "network data and device data" and "receiving device data". However, Yanacek was not cited to teach the language in claim 1 that Applicant is addressing, "receive data from the attached device". Sorhaug was cited to teach this limitation, and thus Applicant's argument is not persuasive.

8. Worrall in view of Sorhaug, as described in the previous and pending rejections, were cited to teach network and device data; Yanacek was cited to teach turning tapping on and off.

9. As was noted in the previous Office Action (6/20/2008), Yanacek clearly teaches turning the tap on and off (Fig. 2, col. 1 lines 1 – 10, col. 4 lines 5 – 10, lines 50 - 55 and col. 5 lines 53 - 56). Turning said tap off, and preventing it from tapping and would thus preventing it from receiving all data; not receiving any data includes both network and device data (where said device data is data sent between the two tapped devices).

10. Applicant also argues that "claim 1 recites that the device data by the first and second ports can be inserted back into the network cable." However, this language is not in claim 1, and thus Applicant's argument is not persuasive.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 – 13, 15, 16,17,19 – 24, 26, 27, 29, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worrall et al. (US 2006/0153177 A1), hereafter Worrall, in view of in view of Sørhaug et al. (US 6,424,627 B1), hereafter Sorhaug, further in view of Yanacek et al. (5,940,376), hereafter Yanacek.

3. Regarding claim 1, Worrall shows a network tap that permits an attached device to communicate with a node of a network, the node of the network communicating with a network cable transmitting network data thereon, the network cable having a first segment and a second segment, the network tap comprising: a first and second tap port, at least one of which is configured to receive a copy of network data obtained from the network cable, wherein the attached device can be selectively connected to at least one of the first and second tap ports (Abstract, Figs. 1A-1C, Figs 4 and 5, [0023-0029]).

Worrall does not show at least one of the first and second tap ports configured to receive device data from the attached device, the first and second tap ports being capable of operating in a plurality of modes, each being defined by enabling or disabling the ability of the first and second tap ports to receive network data and device data; means for inserting device data from the attached device into the network cable without

disrupting the flow of data therein; and means for selecting one of the plurality of modes in which the first and second tap ports may operate.

Sorhaug shows at least one of the first and second tap ports configured to receive device data from the attached device, means for inserting device data from the attached device into the network cable without disrupting the flow of data therein. (Sorhaug, col. 2 lines 1 – 22, col. 2 lines 40 – 65, col. 3 lines 10 – 45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Worrall with that of Sorhaug in order to allow for more control of the network tap apparatus, and how the data in said network tap system was handled in order to enable more options for configuration and use as well as to monitor data at maximum data rates while providing not significant network data delay (Sorhaug, Abstract, col. 1 line 40 – col. 2 line 10).

Worrall in view of Sorhaug do not show the first and second tap ports being capable of operating in a plurality of modes, each being defined by enabling or disabling the ability of the first and second tap ports to receive network data and device data; and means for selecting one of the plurality of modes in which the first and second tap ports may operate.

Yanacek shows the first and second tap ports being capable of operating in a plurality of modes, each being defined by enabling or disabling the ability of the first and second tap ports to receive network data and device data; and means for selecting one of the plurality of modes in which the first and second tap ports may operate (Fig. 2, col. 1 lines 1 – 10, col. 4 lines 5 – 10, lines 50 - 55 and col. 5 lines 53 - 56).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Worrall in view of Sorhaug and NetOptics with that of Yanacek in order to enable and more advanced and flexible system.

4. Regarding claim 2, Worrall in view of Sorhaug and Yanacek further show wherein in one mode, the first and second tap ports are both enabled to receive the network data (Worrall, Figs. 1a-1c, 3a-3c; Sorhaug, Fig. 2 and col. 2 lines 5 – 65).

5. Regarding claim 3, Worrall in view of Sorhaug and Yanacek further show wherein in one mode, at least one of the first and second tap ports are enabled to receive device data (Worrall, Figs. 1a-1c, 3a-3c; Sorhaug, Fig. 2 and col. 2 lines 5 – 65).

6. Regarding claims 4 - 9, Worrall in view of Sorhaug and Yanacek further show wherein the first and second tap ports are capable of operating in a plurality of modes, each mode being defined by enabling or disabling the ability of the first and second tap ports to receive data (Yanacek Fig. 2, 10A – 10C), including network and device data (Worrall, Figs. 1a-1c, 3a-3c; Sorhaug, Fig. 2 and col. 2 lines 5 – 65).

Worrall in view of Sorhaug and Yanacek thus disclose enabling or disabling the ability for each of the tap ports to receive network and device data.

It would have been obvious to one of ordinary skill in the art at the time of the invention to experiment and try the various permutations of on and off for both network and device data, as it is obvious to try choosing from a finite number of identified and predictable configurations.

7. Regarding claim 10, Worrall in view of Sorhaug and Yanacek further show wherein means for inserting received device data into the network cable without disrupting the flow of data therein comprises an Ethernet switch (Worrall, Fig. 1(c)).

8. Regarding claim 11, Worrall in view of Sorhaug and Yanacek further show wherein means for inserting received device data into the network cable without disrupting the flow of data therein comprises an integrated circuit (Sorhaug, col. 2 lines 55 – 56, col. 3 lines 4 5- 47).

9. Regarding claim 12, Worrall in view of Sorhaug and Yanacek further show wherein the integrated circuit comprises a field programmable gate array (Worrall, Fig. 4).

10. Regarding claim 13, Worrall in view of Sorhaug and Yanacek further show wherein means for selecting one of the plurality of modes in which the first and second tap ports may operate comprises: a management port configured to selectively connect to a remote computer; and an integrated circuit configured to receive management data from the management port to at least indirectly enable or disable the ability of the first and second tap port to receive at least one of network data and device data (Yanacek, Figs. 2, 10A – 10C).

11. Regarding claim 15, Worrall in view of Sorhaug and Yanacek further show a network tap that permits an attached device to communicate with a node of a network, the node of the network communicating with a network cable transmitting network data thereon, the network cable having a first segment and a second segment, the network tap comprising:

a first tap port configured to receive a copy of network data obtained from the network cable (Worrall, Abstract, Figs. 1A-1C, Figs 4 and 5, [0023-0029]);

a second tap port configured to receive a copy of network data obtained from the network cable, wherein the attached device can be selectively connected to at least one of the first tap port and second tap port (Worrall, Abstract, Figs. 1A-1C, Figs 4 and 5, [0023-0029]), wherein at least one of the first tap port and second tap port is configured to receive device data from the attached device (Sorhaug, Fig. 2, col. 2 lines 5 – 65), and wherein the first tap port and second tap port are configured to operate in a plurality of modes, each mode being defined by enabling or disabling the ability of the first tap port and second tap port to receive network data and device data (Yanacek, Fig. 2, 10A-10C);

a routing node that is in communication with the first tap port and second tap port, the routing node being configured to pass network data from the network cable to at least one of the first tap port and the second tap port and to pass device data from at least one of the first tap port and second tap port to the network cable (Sorhaug, col. 3 line 10 – col. 4 line 45); and

an integrated circuit (Sorhaug, col. 2 lines 55-56, col. 3l ines 45-47) configured to select the mode in which the first tap port and second tap port operate (Yanacek, Figs. 2, 10A – 10C).

12. Regarding claims 16, 17 and 19 – 24, Worrall in view of Sorhaug and Yanacek further show wherein the first and second tap ports are capable of operating in a plurality of modes, each mode being defined by enabling or disabling the ability of the

first and second tap ports to receive data (Yanacek Fig. 2, 10A – 10C), including network and device data (Worrall, Figs. 1a-1c, 3a-3c; Sorhaug, Fig. 2 and col. 2 lines 5 – 65).

Worrall in view of Sorhaug and Yanacek thus disclose enabling or disabling the ability for each of the tap ports to receive network and device data.

It would have been obvious to one of ordinary skill in the art at the time of the invention to experiment and try the various permutations of on and off for both network and device data, as it is obvious to try choosing from a finite number of identified and predictable configurations.

13. Regarding claim 26, Worrall in view of Sorhaug and Yanacek further show a network tap that permits an attached device to communicate with a node of a network, the node of the network communicating with a network cable transmitting network data thereon, the network tap comprising: a first network port configured to transmit or receive network data; a second network port configured to transmit or receive network data; a first tap port configured to receive a copy of at least some of the network data (Worrall, Abstract, Figs. 1A-1C, Figs 4 and 5, [0023-0029]);

a second tap port configured to receive a copy of at least some of the network data (Worrall, Abstract, Figs. 1A-1C, Figs 4 and 5, [0023-0029]),

wherein an attached device can be selectively connected to at least one of the first tap port and second tap port (Sorhaug, Fig. 2, col. 2 lines 5 – 65),

wherein at least one of the first tap port and second tap port is configured to receive device data from the attached device (Sorhaug, Fig. 2, col. 2 lines 5 – 65), and

wherein the first tap port and second tap port are configured to operate in a plurality of modes, each mode being defined by enabling or disabling the ability of the first tap port and second tap port to receive network data and device data (Yanacek, Fig. 2, 10A-10C); and

a first switch (Worrall, Fig. 1(c)) that is in communication with the first network port and the second network port and with the first tap port and second tap port, the switch being configured to pass network data between the first network port and the second network port and transmit device data from one of the first tap port and second tap port to one of the first network port and second network port on the network cable without disrupting a flow of the network data (Sorhaug, Abstract, col. 2 lines 1 – 22, col. 3 line 10 – col. 4 line 45).

14. Regarding claim 27, Worrall in view of Sorhaug and Yanacek further show utilizing a switch that is in communication with the first network port and the second network port and with the first tap port and the second tap port, the switch being configured to combined network data from the first network port and second network port and transmit the combined network data to one of the first tap port and second tap port (Worrall, Abstract, Figs. 1A-1C, Figs 4 and 5, [0023-0029]).

15. Regarding claim 29, Worrall in view of Sorhaug and Yanacek further show an integrated circuit configured to select the mode in which the first tap port and the second tap port operate (Sorhaug, col. 2 lines 55 – 56; col. 3 line 10 – col. 4 line 45)

16. Regarding claim 30, Worrall in view of Sorhaug and Yanacek further show wherein the integrated circuit comprises a Field Programmable Gate Array (Worrall, Fig. 4).

17. Regarding claim 31, Worrall in view of Sorhaug and Yanacek further show a management port configured to transmit management data to the integrated circuit, the management port being configured to be selectively connected to a remote computer (Yanacek, Fig. 2, 10A-10C).

18. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable in view of Worarall in view of Sorhaug and Yanacek as applied to claims 1 and 13 above, further in view of Bouthillier et al. (6,092,724), hereafter Bouthillier.

Worrall in view of Sorhaug and Yanacek enable configuring a network tap to operate in one of a pluarality of modes (Yanacek, Figs. 2, 10A – 10C).

Worrall in view of Sorhaug and Yanacek do not show where this mode selection is done via one or more manual switches on the network tap.

Bouthillier shows a manual switch for changing the configuration and operating mode of a network device (Abstract, Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Worrall in view of Sorhaug and Yanacek with that of Bouthillier to enable the use of manual switches to configure the electronic device as manual switches are well-understood, easy to operate and reliable.

19. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Worarall in view of Sorhaug and Yanacek as applied to claim 15 and 17 above, and further in

view of Bunker et al. (US 2003/0056116 A1), hereafter Bunker, further in view of Chinnock et al. (5,426,427), hereafter Chinnock.

Worarall in view of Sorhaug and Yanacek show claims 15 and 17.

Worarall in view of Sorhaug and Yanacek do not show where the attached device is an intrusion detection system; and the device data comprises a kill packet from the intrusion detection system, the routing node being configured for transmitting the kill packet via the network cable to a firewall.

Bunker shows an intrusion detection system and where the intrusion detection system can block access from particular devices ([0009-0010,0150,0312-0313]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Worarall in view of Sorhaug and Yanacek with that of Bunker as it is a combination of prior art elements according to known methods in order to yield predictable results.

Worarall in view of Sorhaug, Yanacek and Bunker do not show where said intrusion detection system utilizes a kill packet.

Chinnock shows a kill packet (col. 12 lines 1 – 25).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Worarall in view of Sorhaug, Yanacek and Bunker with that of Chinnock as it is a combination of prior art elements according to known methods in order to yield predictable results.

20. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Worarall in view of Sorhaug and Yanacek as applied to claim 16 above, and further in view of Pontis et al. (US 2004/0007526 A1), hereafter Pontis.

Worarall in view of Sorhaug and Yanacek show a first multiplexer in communication with the first tap port (Yanacek, Fig. 2, 10A-10c); and a second multiplexer in communication with the second tap port (Yanacek, Fig. 2, 10A-10C), an integrated circuit (Worrall, [0024-0026]), as well as communicating with taps in order to configure them (Yanacek, Fig. 2, 10A-10C).

Worarall in view of Sorhaug and Yanacek do not show where said integrated circuit controls the first multiplexer and second multiplexer to select the mode in which the first tap port and second tap port operate.

Points shows a Field Programmable Gate Array (FPGA), which is inherently a type of integrated circuit, controlling a multiplexer's mode ([0075]), thus showing where said integrated circuit controls the first multiplexer and second multiplexer to select the mode in which the first tap port and second tap port operate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Worarall in view of Sorhaug and Yanacek with that of Pontis as it involves use of known techniques (using integrated circuits to control multiplexers) to yield predictable results.

21. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Worarall in view of Sorhaug and Yanacek as applied to claim 27 above, and further in view of NetOptics (4x1 GigaBit Tap).

Worarall in view of Sorhaug and Yanacek show tap ports receiving copies of network data, and utilizing switches for duplicating combined network data and transmitting said duplicated combined data (Worrall; Abstract, Figs. 1A-1C, Figs 4 and 5, [0023-0029]; Sorhaug, col. 2 lines 1 – 22, col. 2 lines 40 – 65, col. 3 lines 10 – 45).

Worarall in view of Sorhaug and Yanacek do not explicitly show a third and a fourth tap port.

NetOptics shows a third and a forth tap port. (pgs. 1 – 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Worrall in view of Sorhaug and Yanacek with that of NetOptics in order to allow for the connection of more devices, enabling more detailed network monitoring as well as more possible monitoring configurations.

22. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worrall in view of Sorhaug and Yanacek as applied to claim 26 above, further in view Tomonaga et al. (5,610,913), hereafter Tomonaga and of Gromov (US 6,975,209 B2).

23. Regarding claim 32, Worrall in view of Sorhaug and Yanacek show claim 26.

Worrall in view of Sorhaug and Yanacek do not show claim 26 further comprising a first communication line from the first network port to the first switch and a second communication line from the second network port to the first switch, each of the first communication line and the second communication line including a fan out buffer that propagates the network data to the switch and propagates a copy of the network data to the first tap port and second tap port.

Tomonaga shows where multiple inputs are sent into a switch, and then a multiplex/dexmultiplex unti, which comprises a fan out buffer memory (Figs. 46 and 47).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Worrall in view of Sorhaug and NetOptics with that of Tomonaga in order to increase the number of devices and users that a network can accommodate and support (Tomonaga, col. 3 lines 57 – 67).

Worrall in view of Sorhaug, Yanacek and Tomonaga thus show a first communication line from the first network port to the first switch and a second communication line from the second network port to the first switch, each of the first communication line and the second communication line including a fan out buffer that propagates the network data to the switch and propagates a copy of the network data to the first tap port and second tap port.

Worrall in view of Sorhaug, Yanacek and Tomonaga do not show a relay for circumventing the first switch in the event of loss of power at the network tap and a transformer.

Gromov shows a relay for circumventing the first switch in the event of loss of power at the network tap and a transformer (col. 7 lines 22 – 26, Figs. 2 – 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Worrall in view of Sorhaug, Yanacek and Tomonaga with that of Gromov as it is combining prior art elements to yield predictable results.

24. Regarding claim 33, Worrall in view of Sorhaug, Yanacek, Tomonaga and Gromov show comprising a third communication line for transmitting device data from one of the first tap port and second tap port to the first switch, the third communication line including: a transformer (Gromov, Figs. 2 – 4, col. 7 lines 22 – 67); a physical layer device (Worrall, [0024-0025], Fig. 4; Sorhaug, Fig. 2, col. 1 line 65 – col. 2 line 5); and a multiplexer (Worrall, Fig. 4).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. MacIlwinen whose telephone number is (571) 272-9686. The examiner can normally be reached on M-F 7:30AM - 5:00PM EST; off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Caldwell/
Supervisory Patent Examiner, Art Unit 2442

John MacIlwinen

(571) 272 - 9686